

2nd Midwest Urban Recycling Forum
June 20-21, 2005
MEETING SUMMARY

Presenter: Margaret Guerriero
Organization: U.S. EPA Region 5

Remarks:

- EPA initiated the Resource Conservation Challenge (RCC) in 2002 to re-focus the Resource Conservation and Recovery Act (RCRA) program on resource conservation and to promote and implement innovative approaches to waste reduction and recycling. One of the RCC's four priorities is increasing the National Recycling Rate for Municipal Solid Waste to 35% by 2008.
- The 2001 U.S. Recycling Economic Information Study found that recycling contributes over \$236 Billion annually to the economy. The Midwest region leads the nation in recycling economic activity, contributing over 35% of this economic output, while only representing 20% of the population.
- The 1st Midwest Recycling Forum in 2003 helped further the business of recycling in across the region, and the 2nd Forum will build on that progress.
- The forum sponsors want to recognize that cities and urban areas are key players to increasing recycling rates, and we are encouraged by recent meetings such as the Green Cities Expo in San Francisco, and the Greening the Heartland conference and the U.S. Conference of Mayors annual meeting in Chicago recently, all of which highlighted the progress of cities towards sustainability.

Presentation #1: City of Chicago Recycling Initiatives

Presenter: Sadhu Johnston
Organization: Chicago Department of Environment

Remarks:

- Mr. Johnston stated that the City of Chicago is committed to its recycling initiatives. Mayor Richard M. Daley is committed to making Chicago a "Green City." The Green initiatives being implemented around the City can be viewed online at the www.cityofchicago.org.
- Mr. Johnston explained the Blue Bag recycling program and the City's Interdepartmental Recycling Committee. In 1995, the city launched its Blue Bag Recycling program. The city produces over eight million tons of waste per year. The city government has adopted a 50 percent recycling goal for all waste streams (residential, commercial, and office). Last year, the Interdepartmental Recycling Committee was set up to monitor each city department's recycling goals. This committee meets every other month to discuss urban recycling initiatives within the city government. Each department has a representative, who is responsible for implementing

recycling initiatives within their own department. Waste audits have been started around the city and will eventually cover approximately 600 facilities.

- The Chicago Public Schools are included in this City-wide initiative. A universal recycling system, which covers over 600 schools, has implemented clean paper recycling programs. The initiative has put a recycling bin in each classroom. Each school is graded on the level of recycling it achieves and is rewarded for recycling excellence. It is believed that the school recycling programs will help to imbue a culture of recycling in the City's youth.
- The city has started to target additional specific waste streams, which includes debris and waste from construction and demolition work sites. A new law requires contractors to recycle 25 percent of the waste they generate by January 2006, and the required recycling rate will increase to 50 percent by January 2007. A permanent household hazardous waste (HHW) recycling site is being planned for a location north of downtown. There will also be an electronics drop-off site next-door to the HHW facility, which, in addition to accepting used electronics, will train ex-offenders on demanufacturing techniques.
- A composting facility will be developed. It will be housed at the site of a former incinerator and will accept and process organic waste. A household collection program for composting waste will be selectively tested around the city. Drop-off bins for dry cell batteries have been placed at city libraries, Chicago Transit Authority (CTA) stations, Walgreens drug stores, and elsewhere around the city in various high traffic areas.
- Mayor Daley has established a new grant system (Creative Recycling Grants) for encouraging community recycling programs. These grants amount to a total of \$250,000, broken down into five grants of \$50,000 each. The grants have been awarded to local recycling programs around the City.
- In 2004, 87 percent of Chicago's total waste was collected by private sector hauling companies. The Blue Bag recycling program collects residential waste with city trucks. The goal is to evolve the Blue Bag program to increase the usage of Blue Bags in all diverse neighborhoods.

Q: What types of batteries are collected by the City?

Johnston: All types except car batteries.

Q: Where are the organics going that are being collected?

Johnston: Most organics are screened and are going to a landfill as landfill cover; some organics are being composted.

Q: What do you intend to do with obsolete units collected at the electronics collection facility?

Johnston: De-manufacture them at the electronics collection center, which will be part of the training for the ex-offenders. (This will partially be dependent on market demand for re-use of electronics and for the component parts and materials).

Q: What is done with blue bags extracted at the waste facilities?

Johnston: The blue bags are pulled out, set aside, and consolidated. After that, they are then taken to a nearby recycling facility.

Q: What is the current percentage of recycling done within the construction industry in Chicago?

Johnston: The city-wide recycling percentage is unknown, but approximately 1.5 million tons of steel are currently recycled. The City is eager to get all construction companies on board with current construction recycling initiative.

Q: Are there any recycling training classes or programs being offered for construction contractors?

Johnston: Yes, the City is planning to organize some; check the website or contact City recycling officials in the near future.

Presentation # 2: Trends of Urban Recycling Programs

Presenter: Lucy Stanfield

Organization: EPA Region 5

Presentation # 3: Recycling in NYC: Update on current programs and comparisons with Chicago

Presenter: Marni Aaron

Organization: New York City Department of Sanitation, Bureau of Waste Prevention, Reuse and Recycling

Q: What is the frequency of Saturday leaf collections, and what types of trucks are used?

Aaron: Collections are done bi-annually, using rear-loaded trucks.

Q: Does your waste go to Haiti?

Aaron: No, it goes to transfer stations in each borough of NYC.

Q: Why do you not give out recycling bins?

Aaron: We were having problems with them getting stolen or lost. Residents are now allowed to use whatever type of container is convenient.

Q: Is help provided for people using the recycling drop-off facility?

Aaron: Users are required to place all of their recyclables in the appropriate bins.

Q: Are used electronics and C&D debris handled by the City?

Aaron: Electronics are not currently handled, but NYC is trying to set up some drop-off centers. C&D collection is not needed, because the private sector contractors arrange for recycling or disposal of this waste stream.

Presentation # 4: City of Toronto's Waste Diversion Initiatives

Presenter: Richard Butts

Organization: Toronto Solid Waste Collection

Q: Do all your trucks go to same place to dump their loads?

Butts: Yes, all recycling collection trucks go to the same transfer station, where organics and gray box material are separated.

Q: Are the split trucks working well for you?

Butts: Yes.

Q: Is recycling mandatory for apartments?

Butts: Yes, residents risk having their solid waste collection services cut off, as a penalty for not recycling.

Q: What is the participation rate?

Butts: Toronto measures the participation as the rate on any given day that a green bin will be on the street corner. Approximately 96 percent of residences may be using the green bin on a regular basis, but only a 90 percent participation rate has been observed.

Q: Is there a ban on operating landfills in Ontario?

Butts: No, but landfills are politically unpopular, forcing Toronto to seek solutions other than simple disposal in-province.

Q: How do the pet waste and the diaper waste fit in, and what is left other than organics as residual waste?

Butts: The philosophy is trying to move to include all waste. Packaging and other plastics are still considered solid waste and are collected as such by the City.

Q: What is done with the organics?

Butts: The organics go to the composting facility, and most of this material is composted using an anaerobic digestion technology. Once cured, it is offered to residents or landscapers as a soil amendment.

Q: What are the organic processing units that produce the best compost and/or avoid odors?

Butts: The City has found that a European technology, featuring anaerobic digestion, to be the most successful.

Q: Why is the behavior of the apartment clients so different than single family homes?

Butts: Turnover of ownership and residents is high, and recycling is a low priority on the superintendents' lists. There is no real force pushing against the apartment owners and superintendents to participate in the recycling programs; that is why the City has begun to introduce enforcement elements into the apartment recycling program.

Presentation # 5: City of Minneapolis Recycling Program

Presenter: Susan Young

Organization: Minneapolis Solid Waste and Recycling Division

Q: On average how long does it take a crew to sort a site?

Young: Ms. Young did not provide an exact figure, but indicated it is only a few minutes due to crew experience and efficiency.

Q: How many houses are on recycling route?

Young: The average is 800 to 1,000 houses on a recycling route.

Q: What is the Recycling rate for the city?

Young: Approximately 34 to 36 percent of solid waste is recycled.

Q: Do you require pre-rinsing of cans and bottles?

Young: City crews collect all cans and bottles set out at curbside, whether rinsed or not. The crew will leave tickets notifying residents of excessive moisture or repeatedly dirty cans and bottles.

Q: How many recycling routes does the City cover in a day?

Young: There are 14 routes per day.

Discussion Forum:

- Susan Young of Minneapolis Solid Waste and Recycling Division: Why is everyone moving to single stream collection if source separated programs have demonstrated the ability to deliver high quality materials to markets?
- C. Brooke Beal of the Solid Waste Agency of Northern Cook County: There seems to be a problem with wind blowing recyclables out of open containers. Our agency uses a container with a cover, which prevents litter from blowing around during the day. Also, the dual stream recycling program for us has increased participation rates.
- Jim Daniels of Vanderburgh Co. Solid Waste Department: Problems with material quality can arise due to the fact that many contracts are structured as hauling contracts, and don't contain the necessary incentives for the collector to maximize quality and minimize rejects and residue.
- David Ross of the Illinois Department of Commerce & Economic Opportunity: Culture contributes to the way that the recycling programs work, both political and in the general population. Minnesota has a political constituency that is hard to find anywhere else, and with three MRFs in the area it allows for higher prices on commodities and/or more competitive processing costs.

- Michael Shaw of Kansas City: We only have one MRF available in our city, and the geography of the area also constricts the type of recycling collection programs that can be implemented.
- Susan Young of Minneapolis Solid Waste and Recycling Division: Minneapolis had considered opening its own MRF before Eureka, the third MRF in Minneapolis, began operating. A switch to a dual stream system was expected from the local politicians and customers, until the cost accounting was examined and shown to be not as favorable as continuing source separation.

Q: If all recyclables are source separated, what processes are performed at the MRFs to justify the MRF operator collected a fee?

Young: The processing fee collected covers transportation, limited processing (e.g., baling), and marketing of the commodities.

- Jim Daniels of Vanderburgh Co. Solid Waste Department: Marketing appears to be a key success factor for Minneapolis' program, which is instrumental to keeping collection costs down while maximizing participation.
- Susan Mooney of the U.S. EPA Region 5: Stressing the economic value of recycling is a key to help foster support for recycling programs. Taxes from recycling programs and tax monies can be used to support your efforts. Take a look at EPA economic studies on recycling programs.

Presentation # 6: Construction & Demolition Recycling

Presenter: Linda Wainstock

Organization: Waukesha County, Wisconsin

Q: Do you do anything in the front end to issue permits to C&D companies?

Wainstock: No, the only front end work that was done for this project was to establish contracts with the general contractor. One can find a list of steps needed for setup of a C&D recycling program in the WasteCap toolkit.

Q: Are there any business opportunities for C&D recycling?

Wainstock: Yes, as WasteCap has demonstrated, there are business opportunities in providing technical assistance to generators and in collecting and transporting the materials to secondary markets and processors. The generator also benefits from reduced disposal charges.

Q: This seems like a very remote area, was there adequate space for staging containers on site, and would the lack of space in a more urban area be a problem in C&D recycling programs?

Wainstock: Container placement is a small problem, but if one can correctly time containers to coincide with the processes that are being done, only one or two waste containers are needed on site at once. For example, most spent drywall is generated during build-out, and most concrete rubble is generated during deconstruction.

Q: What was the money flow on this project? And what were the costs involved?

Wainstock: The recycling costs were actually very low, most of the costs were picked up by the vendors of the recycling services. For example, Waste Management collected all the excess wood with their normal waste pickup, and no extra hauling cost was charge. This demonstrates in part the inherent value of the C/D waste stream commodities and the interest in the private sector in obtaining these materials.

Q: What is the toolkit associated with WasteCap?

Joe Van Rossum (University of Wisconsin): WasteCap has been doing extensive work in the C&D recycling industry. They work as a third contractor in a construction project, to help reduce the waste and increase the recycling on construction sites. The toolkit is a program that helps educate all municipalities about steps to setting up C&D recycling programs.

Q: What are the typical features of a wood waste recycling program?

Wainstock: Typically, the excess wood waste is used as mulch or furnace fuel, but there are other applications as well.

Q: What were the actual cost reductions associated with your program?

Wainstock: The main economic benefit to the program accrued from cost reduction is in landfill tipping fees, and not in the actual sales of the recyclable commodities (although, as noted above, the value of those commodities helped lower collection costs).

Q: Were the C&D recyclables source-separated or commingled in one container? Can source separation work at these job sites?

Wainstock: There is overlap between different types of waste from the construction or deconstruction process - hence, some commingling may occur. However, there are large sections of wood, drywall, and other wastes that can easily be separated. The source separation works when effective training is provided to on-site workers.

Q: Can the perception of C&D recycling be changed to local contractors and waste haulers, such that they make it a habit?

Van Rossum/Wainstock: Contractors in some smaller projects can see that there is savings in C&D recycling and can show over time that it is cost effective to participate in C&D recycling. Over time, education to the contractors is the key to getting more C&D recycling programs going. Contractors find cleaner worksites when C&D recycling is in place because they are managing the debris as commodities, rather than as waste.

Q: Is it easier to capture demolition or construction waste?

Wainstock: For larger projects, it is a lot easier to capture material from demolition sites. When it comes to home building projects, it is difficult to determine which is easier.

Discussion Forum:

- Pete Adrian of the Solid Waste Agency of Lake County: Lake County, IL is on the verge of promulgating an ordinance that would make C&D recycling mandatory. It will be a performance deposit-oriented program. The fee varies for the amount of housing units associated: less than 10 units will be \$300; over 10 units will be \$500; and industrial

sites will be \$1,000. The County has recognized that small home builders may have trouble affording the higher fee. The County's goal of 30 percent diversion will hopefully be met with the ordinance. In Lake County, a pilot test was conducted, and it was found that 47 percent of the C&D waste captured out of a single family home can be diverted from disposal. Recycling of all wood waste is covered under the ordinance, but not drywall.

- Susan Young of the City of Minneapolis: More skilled labor is required for de-construction as opposed to demolition, which increases the cost of this activity. There are other drivers for de-construction including raising recycling rates and historic preservation, though.
- Peter Ousley of the 69 West Washington Management Company, LLC: The demolition practices of skilled demolition contractors in an urban setting actually are more similar to deconstruction than demolition nowadays, because of the extra value that can often be obtained from preserving building components for reuse.

Presentation # 7: Commercial Recycling at 69 West Washington Street (Cook County Administration Building)

Presenter: Peter Ousley

Organization: 69 West Washington Management Company, LLC

Q: What are the costs of the building recycling program? Has it increased overall costs of waste management?

Ousley: The overall costs have been reduced. The main costs that are monitored by the recycling coordinators are the extra time that the housekeepers spend collecting recyclables, compared to the prior baseline of waste collection alone. They discovered that the time spent on bringing out the solid waste to the compactor was reduced, which offset the increased cost of the housekeepers to collect the recyclables stream. In addition, the building saved significantly due to a reduced frequency of compactor breakdowns, which in the past had representative significant maintenance costs and costs to clean up spilled hydraulic fluid due to over-packing the compactors.

Q: Did you get any pushback from your tenants?

Ousley: Some tenants were concerned about confidentiality and destruction of records being recycled. Mr. Ousley was able to show the tenants that their files would be pulped by the end of each business day, thus removing the need for shredding.

Q: What is the cost to you? And why only paper recycling?

Ousley: This is currently a no cost program. It is only paper now, but we hope to put in aluminum processing, and then plastics will be next. Due to the fact, that it is a governmental building taking profit would be too much of an internal hassle.

Q: With some of the new privacy laws, do you do any shredding at the building?

Ousley: Yes, the high intensity drug trafficking agency must shred all their own papers. All of this shredding is done in-house. The fact that the recycled material is turned to pulp by the end of the day also ensures confidentiality.

Q: When you work with your unions, can you show them that two smaller containers, recycling and wet waste, is better than one larger wet waste container?

Ousley: It was the hardest sell in the entire process. The union was worried about the fact that if they allowed this, then other buildings would start demanding additional recycling duties for their housekeepers.

Discussion Forum:

- Jim Daniels of Vanderburgh County Solid Waste Department: Some local businesses in the County building also had issues with shredding on site. They needed to view the shredding first hand to make sure that the shredding is done.
- Ray Akers of Cook County Department of Environmental Control: A unique situation is present in the buildings around the Daley Building in downtown Chicago, Illinois. Cook County is in the process of putting an organized recycling program together. The problem is that every different group of political people within the area wants to keep their own programs, and make it difficult to set up a unified program for the government buildings in the city.
- Susan Young of the City of Minneapolis asked of Ray Akers: Do you have problems with implementing additional recycling efforts, due to cuts in the city budgets?
- Ray Akers: Funding with the Cook County Department of Environmental Control is steady but cost saving programs are a must to reduce future cost pressures.
- David Ross of the Illinois Department of Commerce and Economic Opportunity: In his Department, they see the need for grant funding to help start and support recycling programs around the city. They are trying to fill this need as much as they can.

Presentation #8: E-Waste and Recycling programs

Presenter: Jeff Krcmarik

Organization: Washtenaw County, Michigan

Q: You received a \$44,000 grant from the state - how was that money used?

Krcmarik: Of this grant money, \$25,000 was allocated for de-manufacturing, and the rest was for pickup and transportation.

Q: Have you worked with Classic Computer Recovery?

Krcmarik: No, we have not but we have been approached by them to do some recycling.

Q: You said that you accept computers from small business, how do you ensure that the drop-off facility remains exempt from RCRA hazardous waste regulations?

Krcmarik: The HHW is not considered business waste so it can be dropped at the permanent facility. The County conducts outreach to businesses and restricts the number of E-waste items that can be accepted per collection event from each generator.

Q: Have any private computer recycling companies approached you? Why have you not used them?

Krcmarik: Yes, we have been approached. We decided not to use them because they shipped to China and other overseas locations, and we did not have confidence the waste would be managed in an environmentally safe manner. This decision was reached in spite of a higher price per pound being offered by foreign demanufacturers.

Q: Do you have problems with businesses trying to get away with dropping off cathode ray tubes (CRTs) over the monthly RCRA limit?

Krcmarik: There are some situations where people will not be allowed into the facility, if the staff notices they are delivering too many CRTs.

Discussion Forum:

- Mike Mitchell of the Illinois Recycling Association: In Illinois, there has been in the past a big push to promote big one day events for drop-offs. Now the push seems to be establishing permanent facilities for drop-offs, which are open at least one day per month. The Illinois Department of Commerce and Economic Opportunity has held a grant round to help developing 17 new facilities and programs for E-waste drop-off sites. Selected pilot projects have been set up to test the effectiveness of these permanent facilities.
- Jim Daniels of Vanderburgh County Solid Waste Department: Events are set up cooperatively between different municipalities in his County, which allow residents to drop-off bulky waste items, HHW, and E-waste.
- Susan Young of the City of Minneapolis: The seven metro counties in Minnesota have at least one or two permanent drop-off sites, and they all cooperate with each other. The residents can also use their curbside pickup program (on certain days) for E-waste recycling.
- Pete Adrian of the Solid Waste Agency of Lake County: Has anyone every talked with a waste hauler about picking up this service in a curbside recycling program?
- Susan Young of the City of Minneapolis: In Minneapolis, every week customers are allowed to set up two over-sized items.
- Jim Daniels of Vanderburgh County Solid Waste Department: A separate contract with the waste hauler was set up for two collections of E-waste per year. This slightly backfired, because some users have adopted the habit of setting out these items for routine collections and expecting the hauler will take them.

- Michael James Shaw of the City of Kansas City: Defining a large item is a key to instituting a good contract. Defining what is trash and what is a recyclable redefines recycling. In Kansas City, we have a bulky pickup day and now there is a shift that many things that used to be considered trash is considered bulky. This may or may not turn out to be an economic advantage to the City under the current contract terms.
- Pete Adrian of the Solid Waste Agency of Lake County: Why is the E-waste not picked up at the curb?
- Michael James Shaw of the City of Kansas City: The cost per house increases, and the commodities of the E-waste may be damaged on the way.
- Susan Young of the City of Minneapolis: The trucks pick up the E-waste in Minneapolis on normal curbside routes. This practice has caused only limited breakage of the monitors and computers.
- Jim Daniels of Vanderburgh County Solid Waste Department: The philosophical shift must occur to show a shift of responsibility and cause the public, contractors, and politicians to see the need for a convenient curbside pickups and recycling in general.